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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,881	12/01/2000	Steven Man Pak Yip	81862P182	5709

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EXAMINER

FOX, JAMAL A

ART UNIT	PAPER NUMBER
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2664

DATE MAILED: 06/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/728,881

Applicant(s)

YIP ET AL.

Examiner

Jamal A Fox

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

1. Claims 1, 7, 13 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Fawaz et al. U.S. Patent No. 6,654,374.

Referring to claim 1, Fawaz et al. discloses a method comprising:

receiving a message (STOP message, col. 11 line 53 – col. 12 line 3) indicating that a destination port of a multiservice network (packet switched and circuit switched, col. 5 line 61 – col. 6 line 2) is congested (congested, col. 11 line 53 – col. 12 line 3);
and

reducing incoming traffic (empties, col. 11 line 53 – col. 12 line 3) to the congested port to a guaranteed bandwidth (col. 2 lines 8-19 and col. 6 lines 3-10) of traffic until the destination port is uncongested (uncongested, col. 11 line 65).

Referring to claim 7, Fawaz et al. discloses an apparatus comprising:

means for receiving (Fig. 6 ref. sign 304, Fig. 8 ref. sign 404 and respective portions of the spec.) a message indicating that a destination port of a multiservice is congested; and

means for reducing incoming traffic (Input Buffer, Figures 6 and 8) to the congested port to a guaranteed bandwidth of traffic until the destination port is uncongested.

Referring to claim 13, Fawaz et al. discloses a computer readable medium having instructions (inherent) which, when executed by a processing system, cause the system to:

receive control cells (STOP message, col. 11 line 53 – col. 12 line 3) indicating that a destination port of a multiservice network (packet switched and circuit switched, col. 5 line 61 – col. 6 line 2) is congested (congested, col. 11 line 53 – col. 12 line 3); and

reduce incoming traffic (empties, col. 11 line 53 – col. 12 line 3) to the congested port of a guaranteed bandwidth (col. 2 lines 8-19 and col. 6 lines 3-10) of traffic until the destination port is uncongested (uncongested, col. 11 line 65).

Referring to claim 19, Fawaz et al. discloses an apparatus comprising:

a receiver (Fig. 6 ref. sign 304, Fig. 8 ref. sign 404 and respective portions of the spec.) to receive a message indicating that a destination port of a multiservice network (packet switched and circuit switched, col. 5 line 61 – col. 6 line 2) is congested (congested, col. 11 line 53 – col. 12 line 3); and

a traffic manager (Input Buffer, Figures 6 and 8) to reduce incoming traffic to the congested port to a guaranteed bandwidth (col. 2 lines 8-19 and col. 6 lines 3-10) of traffic until the destination port is uncongested (uncongested, col. 11 line 65).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2, 8, 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fawaz et al.

Referring to claim 2, Fawaz et al. discloses the method of claim 1 wherein the network is selected from the group consisting of:

Asynchronous Transfer Mode (ATM) (col. 6 lines 35-42) and Internet Protocol (IP) network (col. 2 lines 63-65 and col. 8 lines 30-35), but does not explicitly teach of Frame Relay (FR) and Circuit Emulation Service (CES) networks. However, Fawaz et al. discloses other technology in (col. 6 lines 35-42). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included Frame Relay and Circuit Emulation Service networks to the invention of Fawaz et al. because CES is typically used to transfer voice or video traffic across an

ATM network and Frame Relay is a **packet switched** technology that is used on packet switched networks (col. 5 line 65).

Referring to claim 8, Fawaz et al. discloses the apparatus of claim 7 wherein the network is selected from the group consisting of:

Asynchronous Transfer Mode (ATM) (col. 6 lines 35-42) and Internet Protocol (IP) network (col. 2 lines 63-65 and col. 8 lines 30-35), but does not explicitly teach of Frame Relay (FR) and Circuit Emulation Service (CES) networks. However, Fawaz et al. discloses other technology in (col. 6 lines 35-42). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included Frame Relay and Circuit Emulation Service networks to the invention of Fawaz et al. because CES is typically used to transfer voice or video traffic across an **ATM network** and Frame Relay is a **packet switched** technology that is used on packet switched networks (col. 5 line 65).

Referring to claim 14, Fawaz et al. discloses the medium of claim 13 wherein the network is selected from the group consisting of:

Asynchronous Transfer Mode (ATM) (col. 6 lines 35-42) and Internet Protocol (IP) network (col. 2 lines 63-65 and col. 8 lines 30-35), but does not explicitly teach of Frame Relay (FR) and Circuit Emulation Service (CES) networks. However, Fawaz et al. discloses other technology in (col. 6 lines 35-42). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included Frame Relay and Circuit Emulation Service networks to the invention of Fawaz et al. because CES is typically used to transfer voice or video traffic across an

ATM network and Frame Relay is a **packet switched** technology that is used on packet switched networks (col. 5 line 65).

Referring to claim 20, Fawaz et al. discloses the apparatus of claim 19 wherein the network is selected from the group consisting of:

Asynchronous Transfer Mode (ATM) (col. 6 lines 35-42) and Internet Protocol (IP) network (col. 2 lines 63-65 and col. 8 lines 30-35), but does not explicitly teach of Frame Relay (FR) and Circuit Emulation Service (CES) networks. However, Fawaz et al. discloses other technology in (col. 6 lines 35-42). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included Frame Relay and Circuit Emulation Service networks to the invention of Fawaz et al. because CES is typically used to transfer voice or video traffic across an **ATM network** and Frame Relay is a **packet switched** technology that is used on packet switched networks (col. 5 line 65).

Claims 3-6, 9-12, 15-18, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fawaz et al. in view of Milliken et al.

Referring to claim 3, Fawaz et al. discloses the method of claim 2, comprising a queue associated with the congestion destination port (queue, col. 4 lines 45-67), but fails to explicitly teach of scheduling a grant for an output queue. However, Milliken et al. discloses a scheduled departure time in (col. 2 lines 14-22). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included scheduling a grant for an output queue to the invention of Fawaz et al. in order to maintain quality of service characteristics as suggested by Milliken et al.

Referring to claim 4, Milliken et al. discloses determining whether a theoretical departure time for at least one virtual output queue is less than a current time (col. 7 lines 35-48).

Referring to claim 5, Milliken et al. discloses scheduling a grant for the virtual output queue having the smallest theoretical departure time (col. 8 lines 45-60).

Referring to claim 6, Milliken et al. discloses scheduling a grant to one of the virtual output queues associated with the congested destination port using either round robin scheduling method (col. 2 line 5) or a priority based scheduling method (col. 1 line 60 – col. 2 line 11 and col. 5 lines 57-64).

Referring to claim 9, Fawaz et al. discloses the apparatus of claim 8 comprising a means for scheduling a queue (Scheduler, Figures 6 and 8), but fails to explicitly teach of scheduling a grant for a virtual output queue. However, Milliken et al. discloses a scheduled departure time in (col. 2 lines 14-22). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included scheduling a grant for a virtual output queue to the invention of Fawaz et al. in order to maintain quality of service characteristics as suggested by Milliken et al.

Referring to claim 10, Milliken et al. discloses a means (CSCHED, Fig. 3 and respective portions of the spec.) for determining whether a theoretical departure time for at least one virtual output queue is less than a current time (col. 7 lines 35-48).

Referring to claim 11, Milliken et al. discloses a means (algorithm, col. 8 lines 45-60) for scheduling a grant for the virtual output queue having the smallest theoretical departure time.

Referring to claim 12, Milliken et al. discloses a means for scheduling (CQMGR, Fig. 3 and respective portions of the spec.) a grant to a virtual output queue using either a round robin scheduling method (col. 2 line 5) or a priority based scheduling method (col. 1 line 60 – col. 2 line 11 and col. 5 lines 57-64).

Referring to claim 15, Fawaz et al. discloses the method of claim 14, comprising a queue (queue, col. 4 lines 45-67), but fails to explicitly teach of scheduling a grant for an virtual output queue. However, Milliken et al. discloses a scheduled departure time in (col. 2 lines 14-22). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included scheduling a grant for a virtual output queue to the invention of Fawaz et al. in order to maintain quality of service characteristics as suggested by Milliken et al.

Referring to claim 16, Milliken et al. discloses determining whether a theoretical departure time for at least one virtual output queue is less than a current time (col. 7 lines 35-48).

Referring to claim 17, Milliken et al. discloses scheduling a grant for the virtual output queue having the smallest theoretical departure time (col. 8 lines 45-60).

Referring to claim 18, Milliken et al. discloses scheduling a grant to a virtual output queue using either round robin scheduling method (col. 2 line 5) or a priority based scheduling method (col. 1 line 60 – col. 2 line 11 and col. 5 lines 57-64).

Referring to claim 21, Fawaz et al. discloses the apparatus of claim 20 comprising a scheduler (Scheduler, Figures 6 and 8), but fails to explicitly teach of scheduling a grant for a virtual output queue. However, Milliken et al. discloses a

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scheduled departure time in (col. 2 lines 14-22). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included scheduling a grant for a virtual output queue to the invention of Fawaz et al. in order to maintain quality of service characteristics as suggested by Milliken et al.

Referring to claim 22, Milliken et al. discloses a calculator for determining whether a theoretical departure time for at least one virtual output queue is less than a current time (col. 7 lines 35-55).

Conclusion

4. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 305-3988, (for formal communications intended for entry)

Or:

(703) 305-3988 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA. 22202, Sixth Floor (Receptionist).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamal A. Fox whose telephone number is (703) 305-5741. The examiner can normally be reached on Monday-Friday 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (703) 305-4366. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

J.A.F.

Jamal A. Fox



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